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Beyond Numbers: Unveiling the Subjective Well-Being of South Africa's Informal Sector Workers

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Abstract

The informal sector plays a modest but notable role in South Africa's economy, but the living standards and financial circumstances of individuals in this sector often lead to prolonged entrapment. Despite these challenges, individuals employed in the informal sector exhibit average subjective well-being (SWB). Some studies have shown that the usual determinants of SWB have little impact on people employed in South Africa's informal sector. This study aimed to confirm these findings by utilising a comprehensive dataset and concentrating on the informal sector as a whole. Employing an Ordered Probit model, we analysed the determinants of SWB in informal employment in South Africa using the merged Wave 5 (2017) dataset from the adult National Income Dynamics Study. The results revealed that only certain factors, including age, income, relative income, health status, and marital status, have a significant impact on SWB in the informal sector. Specifically, older age, lower health levels, above-average income, and experiences of divorce or separation are associated with a negative impact on SWB. Conversely, average income levels have a positive effect on SWB. We recommend targeted age-sensitive interventions, income enhancement programmes, as well as financial literacy and savings initiatives to help to improve the well-being of informal sector participants.

Keywords: South Africa, informal sector, subjective well-being

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Résumé

Le secteur informel joue un modeste mais notable rôle dans l'économie sud-africaine, même si les personnes qui y travaillent sont piégée, parfois pour longtemps, par leur niveau de vie et leur situation financière. Malgré ces difficultés, les personnes employées dans le secteur informel affichent un bien-être subjectif (SWB) moyen. Certaines études ont montré que les déterminants habituels du bien-être subjectif ont peu d'impact sur les personnes employées dans le secteur informel en Afrique du Sud. La présente étude a pour objectif de confirmer ces résultats en utilisant un ensemble exhaustif de données et en se focalisant sur le secteur informel dans son ensemble. À l'aide d'un modèle Probit ordonné et à partir des données fusionnées de la vague 5 (2017) de l'étude nationale sur la dynamique du revenu des adultes, nous avons analysé les déterminants du bien-être social dans l'emploi informel en Afrique du Sud. Les résultats ont révélé que, dans le secteur informel, seuls certains facteurs, notamment l'âge, le revenu, le revenu relatif, l'état de santé et le statut matrimonial ont un impact significatif sur le bien-être social. Plus précisément, un âge avancé, un état de santé précaire, un revenu supérieur à la moyenne et des expériences de divorce ou de séparation sont associés à un impact négatif sur le bien-être social. À l'inverse, un revenu moyen a un effet positif sur le bien-être social. Nous recommandons des interventions ciblées et adaptées selon l'âge ; des programmes d'amélioration des revenus ; et des initiatives d'éducation financière et d'épargne pour contribuer à l'amélioration du bien-être des participants du secteur informel.

Mots-clés : Afrique du Sud ; secteur informel ; bien-être subjectif

Introduction

South Africa's urban landscape has seen a proliferation of informal settlements due to migration from rural areas to urban areas, placing considerable strain on major cities and the formal wage sector. These settlements, often situated in peri-urban areas, serve as refuge for disadvan☺taged urban residents (Rogerson 2016; Yuki 2007; Even-Zahav 2016). Although informal settlements host many workers employed in the informal sector, this sector is not confined to informal settlements; diverse informal businesses are found across urban spaces. The informal sector comprises self-employed individuals and small enterprises that often lack formal contracts, tax registration, and financial stability, resulting in their largely operating outside the formal regulatory framework (SME South Africa 2023; Thwala 2022).

Despite enduring challenges such as low education levels and precarious working conditions, the informal sector remains a vital source of employment and economic activity in South Africa. This phenomenon reflects the

country's urbanisation trajectory, which has resulted in steady expansion of the informal sector compared to the formal sector (Yuki 2007). Despite the adversity often associated with informal sector employment, certain activities offer pathways to sustainable livelihoods and income generation (Rogerson 2016; Skinner 2019).

Subjective well-being (SWB) is a crucial metric for assessing individuals' quality of life and livelihoods in the informal sector (Diener 1984; Cramm et al. 2010). SWB is a person's subjective judgement of the quality and circumstances of their own life, depending on their psychological situations, success, and life purpose, based on standards they imposed on themselves (Diener 1984). Understanding the determinants of SWB among marginalised populations can inform targeted interventions to enhance their welfare and foster inclusive growth.

While existing research has explored various facets of SWB in different contexts, gaps persist in understanding the determinants of SWB, specifically those of individuals employed in South Africa's informal sector. This study addresses these gaps by focusing exclusively on South Africa's informal sector employees and using a comprehensive dataset to analyse determinants of SWB. Unlike previous studies that have examined specific demographic groups or provinces, this study offers a holistic assessment of SWB drivers across the informal sector participant landscape. Furthermore, this study adopts a nuanced approach by integrating social, material, and racial dimensions of SWB, thereby expanding the scope of existing research. By utilising a combination of direct and indirect methods to identify informal sector participants, this study provides a robust framework for assessing SWB in this context.

Drawing on prior literature, this study hypothesises that social and material factors significantly influence SWB among informal sector workers in South Africa. Specifically, variables such as gender, education, marital status, income, and working relationships are expected to be significant determinants of SWB (Mahadea and Ramroop 2015; Cramm et al. 2010). The study utilises data from the Wave 5 merged National Income Dynamics Study (NIDS) dataset, encompassing cross-sectional data from 2017. The analysis employs an Ordered Probit regression model and focuses on the social, material, and racial determinants of SWB among informal sector workers in South Africa (Alfers and Rogan 2014; Morton et al. 2018).

The remainder of the paper reviews existing literature on SWB determinants, outlines the methodology, presents descriptive statistics and empirical findings, and concludes with policy recommendations.

Literature Review

SWB has been extensively studied from both psychological and economic perspectives, offering unique insights into individual happiness and life satisfaction determinants.

Theoretical framework of SWB

In psychology, SWB is understood as a multidimensional construct comprising affective and cognitive components. Diener (1984) proposed a hybrid theory of SWB, incorporating hedonistic, life satisfaction, and emotional state theories. This perspective emphasises the subjective nature of well-being, highlighting the importance of emotional experiences and cognitive judgments in assessing overall quality of life (Eid and Larsen 2008). Diener's work also differentiates between top-down and bottom-up theories of SWB. Bottom-up theories posit that satisfaction in specific life domains contributes to overall life satisfaction, while top-down theories suggest that a positive life outlook influences perceptions of individual life domains (Andrews and Withey 1976; Brief et al. 1993; Heller et al. 2004; Schimmack and Oishi 2005).

By contrast, the economic model of SWB, which is rooted in welfare economics, examines the relationship between income distribution, economic efficiency, and societal well-being. This perspective views well-being in terms of welfare, utility, and satisfaction, focusing on the impact of leisure and consumption on individual happiness (Headey 1993).

Empirical framework for the determinants of SWB

Empirical studies have identified consistent trends in the determinants of SWB across different nations and regions. Socio-demographic variables such as income, age, gender, health, education, employment, and marital status have been found to influence SWB significantly (Diener and Seligman 2002). For example, research by Blanchflower and Oswald (2004), Easterlin (2003), Frey and Stutzer (2002), Graham et al. (2009), Diener et al. (2010), and Helliwell et al. (2012) has underscored the significance of these factors in influencing individual well-being.

Given the focus of this study is on identifying the determinants of SWB in South Africa's informal sector, the Ordered Probit model has been employed. Previous studies utilising similar methodologies in the South African context are examined to provide insights and comparisons. Table 1 presents the results of these studies for reference and comparison.

Table 1: SWB studies on the informal sector of South Africa

	Botha & Booysen (2013)	Blaauw & Pretorius (2013)	Ebrahim et al. (2013)	Hinks & Gruen (2007)	Powdthavee (2003)	Posel & Casale (2011)
	SA as a whole	Car guards in SA	Each race group in SA	SA as a whole	SA vs. Rich countries	SA as a whole
Income	+ & significant		+ & significant	+ & insignificant	+ & significant	+ & significant
Relative Income						
Much below average income	Base		Base			
Below average income	+ & significant		+ & significant		- & insignificant	
Average income	+ & significant		+ & significant			
Above Average income	+ & significant		+ & significant			
Much above average income	+ & significant		+ & significant			
Age	- & significant	+ & insignificant	- & significant	- & insignificant	- & significant	- & significant
Age- Squared	+ & significant	- & insignificant	+ & significant	+ & insignificant	+ & significant	+ & significant
Health						
Excellent	+ & significant		+ & significant			+ & significant
Fair	+ & significant		+ & significant			+ & significant
Poor	base		Base			Base
Gender	- & significant (F)	- & insignificant (M)	- & significant	- & insignificant (F)	+ & insignificant (M)	+ & significant (M)
Marital status						
Never Married	Base	base	Base	base		Base
Married/ living together	+ & significant	- & insignificant	+ & significant	+ & insignificant		+ & insignificant
Divorced/Separated	+ & significant	- & insignificant	- & insignificant	- & insignificant		+ & insignificant
Widowed	+ & insignificant	/	- & insignificant	- & insignificant		+ & insignificant
Race						
Asian/Indian	+ & significant		+ & significant	+ & significant	+ & significant	- & insignificant
White	+ & significant		+ & significant	+ & significant	+ & significant	Base
Coloured	+ & significant		+ & significant	+ & insignificant	+ & significant	+ & significant
African	Base		Base	Base	Base	- & significant
Education						
No schooling		- & insignificant	Base			
Completed primary school		+ & insignificant	+ & significant		- & insignificant	+ & significant
Completed secondary school		+ & insignificant	+ & significant			
Tertiary degree		/	+ & significant			

Source: Authors' own analysis

The common determinants of SWB identified in the findings in Table 1 are summarised below.

Income

There is a general consensus among researchers that income plays a significant role in determining SWB (Graham 2016). Easterlin (1974) introduced the Easterlin paradox, suggesting that while higher income is initially associated with increased SWB, the impact of higher income on SWB may diminish over time. Possible explanations for this paradox include considering relative income rather than absolute income, adaptation to higher income levels, and the diminishing marginal utility of income once basic needs are met (Graham et al. 2009; Clark et al. 2008).

Age

Early research indicates that younger individuals tend to report higher levels of SWB compared to older individuals (Powdthavee 2003; Botha and Booysen 2013; Ebrahim et al. 2013)

Health

Health status exerts a substantial influence on SWB, with mental health indicators often demonstrating a stronger relationship than physical health indicators (Dolan et al. 2008). Studies by Fleche et al. (2012) and Cramm et al. (2010) in the African context using different methodologies have reported a positive and significant relationship between health status and SWB.

Gender

Findings regarding gender differences in SWB are mixed. Some studies, such as those by Stevenson and Wolfers (2009) and Haring et al. (1984), suggest that men tend to report higher levels of SWB, while others, like Fujita et al. (1991), find women to have higher SWB. However, several studies, including Fleche et al. (2012) and Cramm et al. (2010), have found gender to be an insignificant determinant of SWB. The results presented in Table 1 for the South African context also reflect this variability.

Marital status

Research in South Africa presents conflicting findings regarding the relationship between marital status and SWB. While Cramm et al. (2010) found that married individuals tend to report higher levels of SWB, Morton et al. (2018) found no significant relationship.

Education

Formal education is associated with higher levels of SWB, as indicated by Easterlin's longitudinal research (2003). Van den Bosch and Taris (2018) highlight the correlation between formal education levels and income levels in the formal job sector. However, research by Blaauw (2017) focusing on the informal sector in South Africa suggests that day workers in this sector report high levels of SWB, despite lower levels of formal education.

In conclusion, the relationship between subjective well-being and various socio-economic determinants reflects complex interactions shaped by context and individual circumstances. Income remains a key factor, supporting the notion that financial stability enhances well-being. However, the diminishing returns observed through the Easterlin paradox highlight that SWB gains plateau once basic needs are met. Age and health are also significant, with younger individuals and those in better health reporting higher SWB, suggesting that both life stage and physical and mental well-being play substantial roles in shaping individuals' quality of life. Mixed findings regarding gender, marital status, and education highlight the nuanced and sometimes contradictory nature of determinants of SWB. For example, while formal education typically correlates with higher SWB in the formal sector, studies show that informal sector workers may experience high SWB even with lower educational attainment. This variability highlights the importance of considering specific contexts, such as the informal sector in South Africa, when evaluating determinants of well-being. Overall, these insights emphasise that a one-size-fits-all approach is insufficient for understanding SWB.

Methodology

This quantitative study aims to investigate the determinants of subjective well-being among individuals employed in South Africa's informal sector, focusing on social, material, and racial variables. The section begins by outlining the data source and cleaning procedures, followed by a description of the econometric model and specification of the dependent and independent variables.

Data and variables

The analysis utilised the National Income Dynamics Study adult wave five merged dataset for the year 2017. NIDS is a longitudinal study capturing the livelihoods of individuals and households in South Africa over time. The dataset was imported into Stata for analysis.

In Stata, the dataset was filtered to include only individuals employed in the informal sector. The informal sector refers to the part of the economy that:

1) is primarily located in informal settlements (specified in question A5a);
2) is neither taxed nor monitored by the government (answered 'No' to question Ec7.1);
3) lacks formally written contracts and union membership (specified in question Eb14.1 and Eb15); and
4) is characterised by low-skilled workers receiving minimum or unfixed wages (Rand Merchant Bank 2022; IEJ 2018; Blaauw 2017).

Subsequently, irrelevant responses such as blanks, non-participants, and uninformative answers were excluded from the analysis, resulting in a refined dataset for model estimation. This process of filtering and cleaning the data significantly decreased the number of observations from 45,103 to 615.

The dependent variable, SWB, was based on a question in the NIDS questionnaire asking respondents, 'Using a scale of 1 to 10 where 1 means "Very dissatisfied" and 10 means "Very satisfied", how do you feel about your life as a whole right now?' (NIDS 2017: 50). SWB was recoded in Stata into a categorical variable to use the Ordered Probit model. The SWB variable was recoded by grouping participants' responses as follows: those who rated their satisfaction between 1 and 4 were classified as 1 (not satisfied), a rating of 5 was recoded to 2 (neutral), and ratings from 6 to 10 were classified as 3 (satisfied).

The explanatory variables encompass demographic, material, and racial factors, each recoded in Stata for compatibility with the Ordered Probit model. Table 2 presents the explanatory variables and their corresponding codes.

The model

When analysing SWB, two primary models are commonly employed: the Ordinary Least Squares (OLS) model and the Ordered Probit model. Previous studies, such as those by Stevenson and Wolfers (2009) and Ferrer-i-Carbonell and Frijters (2004), have demonstrated the consistency of results across both models. Given the ordinal nature of the dependent variable, the Ordered Probit model was deemed most appropriate for this study. This model accounts for the likelihood of observations falling into specific categories of SWB, considering both observed and unobserved factors.

The estimation equation was as follows:

$$W_{it} = \alpha + \beta X_{it} + \varepsilon_{it} \quad (1)$$

Where: W_{it} is the reported SWB of individual X_{it} at time , is a vector of all the independent variables, including social, material and cultural variables consistent with the literature. is the error term, which includes unobserved characteristics and measurement errors. Before estimation, the model was tested for multicollinearity, normality, and homoscedasticity using appropriate diagnostic tools. Post-estimation, the model's goodness of fit and the significance of individual coefficients were assessed. Given the high correlation between gender and the number of children, the latter was omitted to address issues of multicollinearity. Additionally, two separate Ordered Probit models were used to explore the impact of absolute and relative income variables.

Table 2: Dependent and explanatory variables

Variable	Details	Type and Description
Dependent Variable:		
Subjective Well-being	SWB	**Categorical**: 1 = Not satisfied, 2 = Neutral, 3 = Satisfied.
Independent variables:		
Demographic Variables:		
Gender	Female	**Dummy Variable:** 0 = Male, 1 = Female
Age	Age	**Continuous Variable:** Age in years
Age Squared	Age-SQ	**Continuous Variable:** Age squared
Education	Years of Schooling	**Categorical:** 1 = No schooling (Base), 2 = Primary school or part, 3 = Secondary school or part, 4 = Tertiary degree.
Marital Status	Married (Married/Living together), No longer married (Divorced/Separated), Never married.	**Categorical:** 1 = Married, 2 = No longer married, 3 = Never married (Base).
Health Status	Excellent, Very good, Good, Fair, Poor.	**Categorical:** 1 = Excellent/Very good (Base), 2 = Neutral, 3 = Fair/Poor.
Material Variables:		
Income (Log)	Income from primary and secondary jobs.	**Continuous Variable:** Amount in Rands
Relative Income	Respondent's income compared and ranked according to average income	**Categorical:** 1 = Below Average income (Base), 2 = Average income, 3 = Above Average income.
Other income	Income from grants	**Dummy Variable:** 1 if received any kind of grant or assistance, 0 otherwise.
Ethnic variables:		
Race group	Respondent's race group.	**Categorical:** 1 = African (Base), 2 = Coloured, 3 = Asian/Indian, 4 = White

Source: NIDS Wave 5 (2017) Adult Survey where applicable. Binary variables assigned by the authors otherwise

Results and Discussion

The results are delineated into two parts. In Part 1, a comprehensive analysis of the data is conducted utilising descriptive statistics, employing pie charts and histograms. Initially, attention is directed to the holistic depiction of the informal sector, elucidating its organisational structure and highlighting key characteristics derived from the dataset. Subsequently, the average SWB across various categories was scrutinised. In Part 2, the outcomes of the Ordered Probit model are presented and discussed, accompanied by post-estimation tests that explore the correlations between the findings of this study and the existing literature.

Descriptive statistics

The informal sector of South Africa

Table 3 portrays the overarching organisation of the informal sector. Notably, the mean SWB registers at 5, indicating a neutral stance towards well-being among employees in this sector. The average age is 38, with an accompanying average income of R2,030. According to research, the informal sector predominantly consists of:

1) females;
2) uneducated individuals who only finished matric or a part of secondary school;
3) low-income earners; and
4) Africans (Chen 2001; Adams et al. 2013; Stats SA 2014).

The sub-sample of individuals used in this study confirms the findings of previous studies, as shown in Figures 1–6 and Table 3.

Botha and Booysen (2013) delved into the determinants of SWB for South Africa as a whole and reported a comparable mean SWB of 5.43. Their study also reflected similar statistics regarding marital status, with 46 per cent never married, 31 per cent married, and 23 per cent no longer married. The subsequent section will delve into the average SWB of individuals employed in the informal sector, segmented by the predefined categories.

SWB in the informal sector

Figure 7 shows that average SWB tends to be higher among individuals in their teenage years (aged 15–19) and older adults (aged 66–70), with lower average SWB observed in midlife. This trend suggests a general, though not perfectly symmetrical, U-shaped pattern in average SWB across age groups, consistent with the findings of Easterlin (1995), Botha and Booysen (2013), and Ebrahim et al. (2013).

Table 3: The informal sector

Variable	*Mean*	*Std. dev.*	*Min*	*Max*
SWB	5	2.43	1	10
Age (yrs)	38	12.10	15	70
Income	R2 030	1480,9	R0	R12 500
Nr of Children	2	1,25	1	6

Variable	*Category*	*Percentage*	*Pie Chart*
Gender	Male	45%	Figure 1 - Gender
	Female	55%	Male Female
Education	No schooling	13%	Figure 2 - Education
	Primary school or part	22%	No school PrimSch or part
	Secondary school or part	60%	SecSch or part Ter degree
	Tertiary degree	5%	
	Postgraduate degree	0%	
Relative income	Below Average Income	50%	Figure 3 - Relative Income
	Average Income	40%	Below Averag Average Above Average
	Above Average Income	10%	
Race	African	91%	Figure 4 - Race
	Coloured	8%	African Coloured Asian/Indian White
	Asian/Indian	0.8%	
	White	0.2%	
Marital Status	Married	32%	Figure 5 - Marital Status
	No longer married	10%	Married No longer married Never Married
	Never Married	58%	
Health Status	Excellent	65%	Figure 6 - Health Status
	Neutral	29%	Excellent Neutral Poor
	Poor	6%	

Source: NIDS (2017)

SWB demonstrates a decline when income reaches very high levels, potentially due to the diminishing marginal utility of wealth. This phenomenon is supported by Kahneman and Deaton (2010) and Layard (2011), suggesting that emotional well-being becomes constrained by other factors beyond a certain threshold of stable income. Visual representations in Figure 8 corroborate this assertion, depicting a decrease in average SWB with the highest income category.

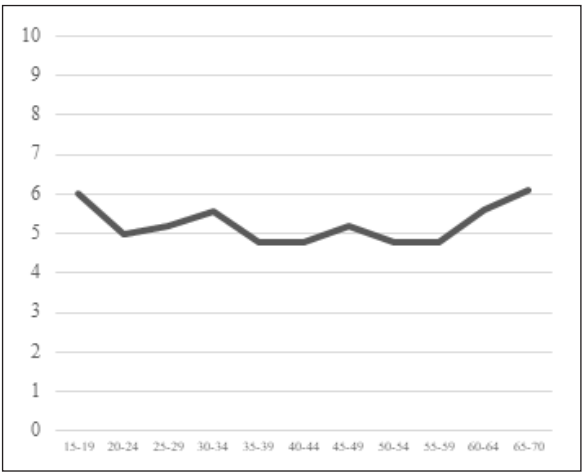

Figure 7: U-shaped Average SWB according to age
Source: NIDS (2017)

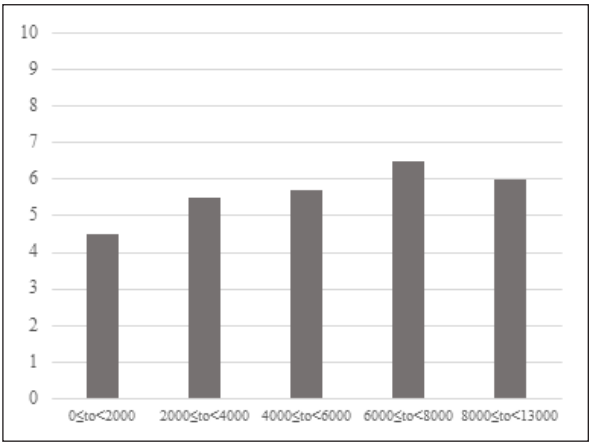

Figure 8: Average SWB according to Income
Source: NIDS (2017)

The histograms in Figure 9–14 further illustrate the average SWB across various categories. These descriptive statistics align with findings from a case study conducted by Mahadea and Ramroop (2015) in KwaZulu-Natal, indicating that males exhibit slightly higher SWB than females, education levels do not significantly affect SWB, and disparities exist in SWB across racial groups. Hinks and Gruen (2007) also observed lower levels of SWB among Africans, while Botha and Booysen (2013) found that married individuals report higher satisfaction compared to their single, divorced, separated, or widowed counterparts.

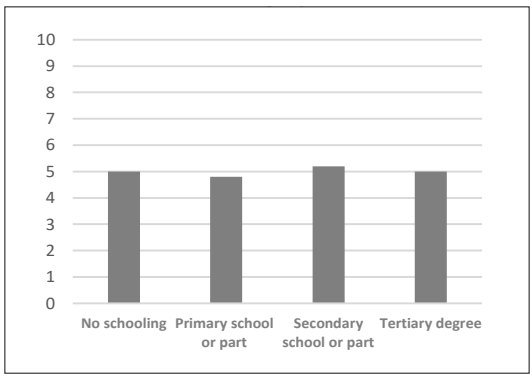

Figure 9: Average SWB per Education category

The Average SWB among the different Education categories do not differe by much

Source: NIDS (2017)

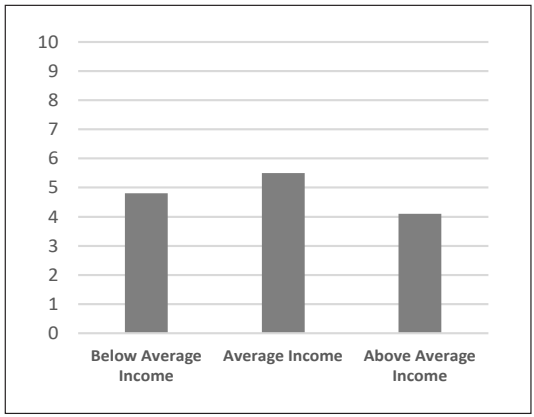

Figure 10: Average SWB per Relative income category

The Average SWB is highest for individuals who earn an average income relative to others.

Source: NIDS (2017)

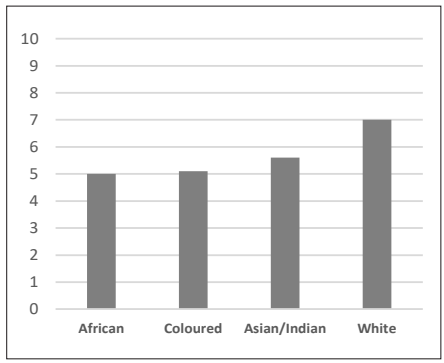

Figure 11: Average SWB according to Race

Africans have the lowest average SWB and Whites have the highest average SWB

Source: NIDS (2017)

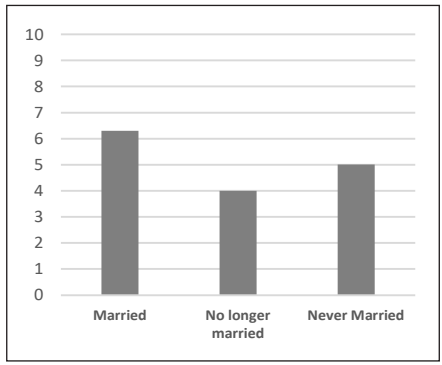

Figure 12: Average SWB according to marital status

Married individuals have the highest average SWB. Individuals who are either divorced or widowed show the lowest average SWB. Source: NIDS (2017)

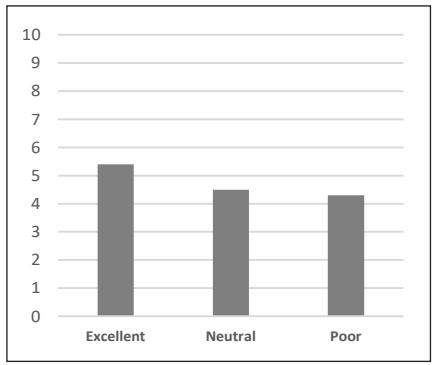

Figure 13: Average SWB according to health status

The average SWB decreases as health status decreases. Individuals with Excellent health have a high average SWB. Source: NIDS (2017)

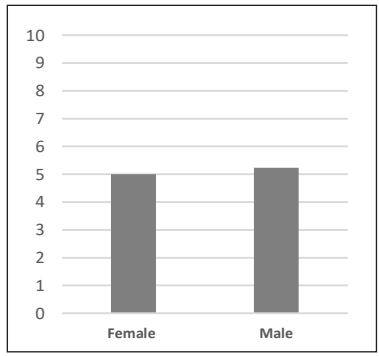

Figure 14: Average SWB according to Gender
Females show a slightly lower
Source: NIDS (2017)

Ordered Probit results

Prior to estimation, the data underwent rigorous pre-estimation tests to ensure the robustness of the model. These tests encompassed the Variance Inflation Factor (VIF) to assess multicollinearity, the Anderson-Darling test to evaluate normality, and the Breusch-Pagan Lagrangian multiplier test to examine homoscedasticity. The authors found the models did not require adjustments after these assessments, facilitating the retrieval of reliable regression results.

Table 4 presents the comprehensive regression outcomes for the two Ordered Probit models, where SWB is the dependent variable and is regressed against all pertinent explanatory variables. Model 1 diverges from Model 2 by incorporating relative income, denoting an individual's perception of his or her income relative to that of their immediate peers. In contrast, Model 2 encompasses absolute income, representing the actual monetary amount received monthly and reflected in the person's bank account.

Upon conducting post-estimation tests, as indicated in Table 4, both Model 1 and Model 2 exhibited statistical validity, with the Prob > chi2 statistic yielding values below the conventional threshold of 0.05. The pseudo R squared values, which represent the joint explanatory power of the explanatory variables, hover around 4.3 per cent and 5 per cent respectively. These figures align closely with prior studies on SWB in South Africa, offering a semblance of consistency with the findings of existing literature (Powdthavee 2003; Hinks and Gruen 2007; Botha and Booysen 2013; Posel and Casale 2011). Notably, the higher Pseudo R2 in Model 2 suggests it is a better fit than Model 1.

Table 4: Ordered probit model regression results

	Model 1		Model 2	
	Coefficient	P-value	Coefficient	P-value
Age	-0.046**	(0.026)	-0.037**	(0.026)
Age-Squared	0.001***	(0.000)	0.001***	(0.000)
log Income	0.342*	(0.078)		
Gender	0.045	(0.123)	-0.036	(0.120)
Grants Received	0.128	(0.122)	0.070	(0.121)
Relative income				
Below Average Income			Base	
Average Income			0.254*	(0.100)
Above Average Income			-0.529	(0.164)
Education				
No schooling	Base		Base	
Primary school Or Part	-0.140	(0.167)	-0.153	(0.166)
Secondary school Or Part	-0.033	(0.168)	0.022	(0.166)
Tertiary degree	-0.132	(0.271)	0.037	(0.268)
Race				
Coloured	-0.121	(0.168)	-0.098	(0.170)
African	Base		Base	
Asian/Indian	-0.061	(0.497)	0.107	(0.492)
White	5.499	(104.382)	5.949	(104.286)
Marital status				
Married	0.061	(0.113)	0.071	(0.112)
No longer married	-0.565	(0.191)	-0.621	(0.185)
Never Married	Base			
Health status				
Excellent	Base		Base	
Neutral	-0.307	(0.109)	-0.383	(0.107)
Poor	-0.410	(0.202)	-0.572	(0.203)
Number of observations	589		600	
Prob > chi2	0.0000		0.0000	
Pseudo R2	0.0426		0.0495	

Dependent variable: SWB = 1 if Not satisfied, = 2 if Neutral, =3 if Satisfied.
***p<1%, **p<5%, *p<10%. Source: NIDS (2017)

In both Model 1 and Model 2, age emerges as a significant determinant of SWB, exhibiting a negative correlation with well-being. This finding resonates with previous research by Botha and Booysen (2013), Ebrahim et al. (2013), Powdthavee (2003), and Posel and Casale (2011), which underscored the inverse relationship between age and SWB, possibly attributed to declining health and increased financial constraints as individuals age.

Income, featured solely in Model 1, showcases a positive and significant impact on SWB, consistent with prior studies by Botha and Booysen (2013), Ebrahim et al. (2013), Powdthavee (2003), and Posel and Casale (2011). This finding highlights the alleviation of financial stress associated with higher income levels, thereby enhancing the well-being of informal sector employees. Grants, akin to income, exhibit a positive yet insignificant effect on SWB, aligning with the observations of Blaauw and Pretorius (2023), particularly concerning the positive impact of income on carguards' well-being.

Relative income, introduced in Model 2, presents a nuanced perspective, with the coefficient for average income earners displaying a positive and significant effect, but this becomes negative for above-average income earners. This inversion confirms the diminishing returns theory posited by Layard (2011) and supported by Botha and Booysen (2013) and Ebrahim et al. (2013), indicating a decline in well-being as income surpasses a certain threshold.

The influence of gender on SWB diverges between Model 1 and Model 2, mirroring the inconclusive findings in prior studies. While Model 1 aligns with Cramm et al. (2012) and Mahadea and Rawat (2008) in portraying a positive yet insignificant impact of being female on SWB, Model 2 accords with Hinks and Gruen (2007) in suggesting a detrimental effect on well-being among females.

Similarly, marital status exhibits a negative and insignificant association with SWB among individuals who are no longer married, echoing the findings of Blaauw and Pretorius (2023), Ebrahim et al. (2013), and Hinks and Gruen (2007). The negative, albeit insignificant, association between not being married and SWB may be attributed to the loss of the emotional and social support typically provided in marriage, potentially contributing to feelings of loneliness or anxiety (Pretorius et al. 2021). According to Pretorius et al. (2021), similar to the adaptation observed in marriage, individuals who experience marital dissolution might initially encounter a decline in SWB, as the absence of companionship and stability associated with marriage creates a lasting emotional gap. Africans, as the base group for race, maintain higher SWB compared to other racial groups, albeit not consistently significant. This finding diverges from prior studies but may be attributed to the homogeneity of the sample, which is primarily comprised of African individuals.

Education, intriguingly, exhibits a negative and insignificant relationship with SWB in Model 1, indicative of diminishing returns to education among informal sector employees. This finding contradicts previous studies by Blaauw and Pretorius (2023) and Ebrahim et al. (2013) but aligns with the observations in Model 2.

Overall, the results suggest that SWB among informal sector employees in South Africa may not hinge on domain satisfaction, as evidenced by the insignificance of numerous variables. However, the average SWB reported indicates a moderate level of well-being, which is in accordance with the top-down theory posited by psychologists.

Conclusion and Policy Recommendations

The prevalence of informal employment in South Africa persists due to ongoing rural-to-urban migration, with migrants seeking improved job prospects and higher incomes in urban areas. For those with limited educational attainment, the informal sector often represents the sole avenue for livelihood. However, the absence of governmental oversight leaves informal sector workers vulnerable to exploitation and economic insecurity (Mohlakoana et al. 2019).

Past research in this domain has either encompassed South Africa holistically, incorporating formal employment or has been restricted to specific subgroups within the informal sector. This study aims to bridge the gap by elucidating the determinants of SWB among informal sector employees in South Africa, without focusing on any particular subgroup within this sector.

Employing an Ordered Probit model for estimation, the findings reveal that age, income (in Model 1), relative income (in Model 2), health status, and marital status significantly influence SWB. Notably, advanced age, compromised health, above-average income, and marital dissolution are associated with diminished SWB, whereas average income levels correlate positively with well-being.

The findings highlight the multifaceted nature of SWB determinants among informal sector employees, underscoring the need for targeted interventions to enhance overall well-being. Policymakers should prioritise initiatives to bolster income levels, address age-related health concerns, and mitigate gender disparities in the informal sector. Additionally, efforts to support individuals grappling with marital dissolution or educational attainment should be considered to foster resilience and well-being within this vulnerable demographic.

The study's outcomes bear significant policy implications. To enhance SWB among informal sector employees in South Africa, targeted, age-sensitive interventions could address the unique challenges of older workers, offering support in areas such as health, financial planning, and mental wellness. Additionally, income enhancement programmes, including skills

development, microloans and support for transitioning to more profitable activities could help informal workers increase their earnings, thereby improving their SWB. Lastly, financial literacy and savings initiatives would enable workers, particularly those with lower incomes, to manage their finances more effectively, reduce their economic vulnerability, and ultimately alleviate financial stress.

The study's efficacy is somewhat constrained by its stringent criteria for identifying informal sector workers in South Africa, leading to a notable reduction in sample size. As explained above, the process of filtering and cleaning the data significantly decreased the number of observations from 45,103 to 615. Further subdivision of the sample for specific variables exacerbated this issue. While the findings largely confirm those of existing research, the small sample size suggests that they should be interpreted cautiously.

It is imperative to devise more precise methodologies for data filtration to encompass a broader spectrum of informal sector employees, thereby enhancing the reliability and generalisability of the findings. Addressing these methodological limitations would enhance the robustness of policy recommendations aimed at fostering SWB among informal sector workers in South Africa.

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